

# West Virginia Forest Health Highlights



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## The Resource

The West Virginia landscape is dominated by more than 11.8 million acres of forest. Due in large part to its varied topography, the forests are a rich diversity of oaks, hickories, spruce, pines, and the state tree — sugar maple.

Ninety percent of all forests in the state are privately owned, but there are nine state forests, 36 state parks, and 56 wildlife management areas that provide public enjoyment.

## Special Issues

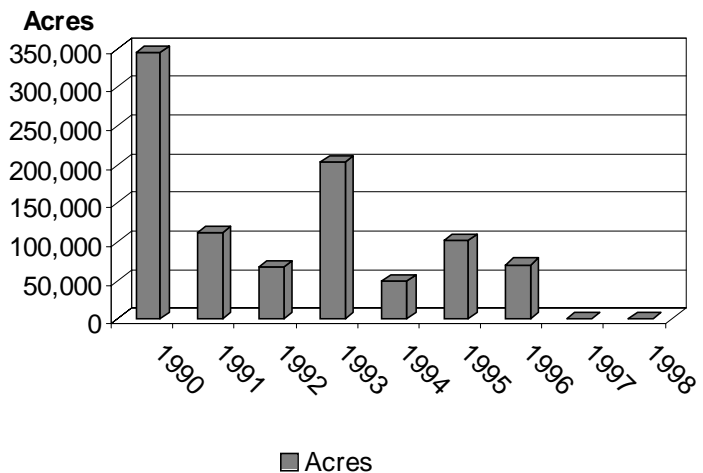
**Beech Bark Disease** – In 1981, beech scale, the insect component of the beech bark disease complex, was found infesting beech timber in over 70,000 acres of forestland. By 1998, the scale infested beech trees covering an area that encompassed 1,352,807 acres in Grant, Barbour, Randolph, Tucker, Pocahontas, Upshur, and Pendleton Counties. The beech bark disease-killing front encompasses 914,972 acres of forestland in all but Barbour and Grant Counties. Currently, there are no efforts underway to attempt control of beech bark disease.

**Gypsy Moth** – The gypsy moth fungus, *Entomophaga maimaiga*, was first found in West Virginia in 1992. This fungus has spread throughout the infested areas and can now be found in 23 counties. Since 1995, it has dramatically reduced the gypsy moth population in these areas.

Approximately 786 acres of gypsy moth-caused defoliation was reported in West Virginia in 1998. All defoliation occurred in Marshall County. The State is involved in a joint State-

Federal effort to attempt to slow the spread (STS) of gypsy moth throughout the southern portion of the State. The STS program treated a total of 7,375 acres using pheromone flakes. WVDA treated 5,645 acres of private and state lands in West Virginia (Monroe - 3,655 acres, Summers - 1,240 acres, and Mercer - 750 acres). Another 1,730 acres were treated in two blocks that included private and National Forest land in Allegheny and Craig Counties, Virginia, and in Monroe County, West Virginia.

## Gypsy Moth Defoliation in West Virginia



**Oak Slug Sawfly** – Defoliation from an outbreak of oak slug sawfly, *Caliroa quercuscoccinea*, occurred in 1998 over an area of 185,796 acres in Wayne, Cabell, Mason, and Putnam Counties. This was the second year for defoliation by this insect, and defoliation increased from the 1997 total of 115,657 acres in Wayne and Cabell Counties. Hosts included red, scarlet, black, pin, and a limited number of white oaks. Damage to oaks could also be seen in Kentucky and Ohio.

## Fire

The 1998 forest fire season reported 996 fires that burned over 21,233 acres causing an estimated \$6,147,660 of damage. Cost of suppression was estimated at \$99,884. The number one cause of fires in West Virginia is arson with debris burning a distant second.

## Forest Stewardship

The philosophy of the Forest Stewardship Program is to ensure that private landowners apply environmental and economic resource management principles to benefit themselves, future landowners, and the public.

The Forest Stewardship Program focal point is the development of a long-term management plan for each woodland owner who is willing to participate. In West Virginia, the Forest Stewardship Program includes a forest management plan, written by a professional forester, as well as financial assistance for reforestation, forest improvement, soil and water protection, wetlands protection, fisheries habitat enhancement, wildlife habitat enhancement, and forest recreation enhancement.

In West Virginia, 2,790 stewardship plans covering 482,334 acres have been developed for landowners as of September 1998.

## Regional Surveys

**Elm Yellows Disease** — Elm yellows, a serious disease of elm trees caused by the elm yellows phytoplasma, was first reported in 1939 in western West Virginia. In 1994, an outbreak of elm yellows disease was noticed in Jefferson and Berkeley Counties on American and slippery elms. The outbreak was the first reported in this part of the State. By 1998, it was widespread in Berkeley and Jefferson Counties. Additionally, it was detected for the first time in Morgan and Hampshire Counties. Surveys were also conducted in the Kanawha and Ohio River areas to

determine if elm yellows could still be detected in those areas where it was historically known to occur. At least one symptomatic tree was found in each of the following counties: Ohio, Marshall, Wetzel, Tyler, Pleasants, Wood, Jackson, Mason, Putnam, and Kanawha. The disease outbreak in the Eastern Panhandle also extends into Virginia, Maryland, and Pennsylvania. The distribution of the outbreak is currently being mapped through a cooperative effort involving the above mentioned states.

**Deer** — White-tailed deer have been identified by the Division of Forestry as one of the major limitations to sustainable forestry and to retaining a balanced forest ecosystem. The abundance of deer in some areas has reduced, altered, and in some cases, eliminated forest regeneration. Numerous studies throughout the Mid-Atlantic States have determined that deer browse has contributed to significant reductions in the number and diversity of understory trees. The long-term consequences of continued heavy deer browse is that in some areas forest tree regeneration may be completely prevented, or, at least, species composition will be altered limiting the forest management that can be practiced. Attempts to protect seedlings from deer are either ineffective or prohibitively expensive. The long-term solution to this resource management problem is to bring the deer herd into a better balance with its habitat.

**Forest Inventory** — During the spring of 1999, the U.S. Forest Service initiated its Forest Inventory Analysis of West Virginia's forestlands. The inventory will take nearly two years, and over 2,500 plots will be measured. Data collected from these plots is used to determine the condition of resource including growth, mortality, species diversity, and quantities of timber available. This information is important in evaluating the condition of the forest resource with respect to harvesting, urbanization, changes in productivity, and disturbances such as storms, fire, and insects or diseases. In addition, the West Virginia Division of Forestry maintains a permanent network of plots to monitor forest health conditions across the State. In 1998, thirty-one forest health monitoring plots were visited by Division personnel to assess crown conditions, tree damage, lichen populations, and signs of ozone damage. This plot system is part of the National Forest Health Monitoring Program conducted by the U.S. Forest Service.

### For More Information



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